

PPQ Pest Planning Functions



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Planning and Preparedness

Pest Detection and Management Programs

USDA, APHIS, PPQ

Riverdale, Maryland

Planning and Preparedness

Under Pest Detection and Management Programs (PDMP)

- Action Plans, or New Pest Response Guidelines- *for pests not known to occur*
- Strategic Planning for Established Pests
- Science/Technical Liaison with CPHST
- Program Analyst- PDMP Website, data presentation, analysis, pest alerts
- “Other”



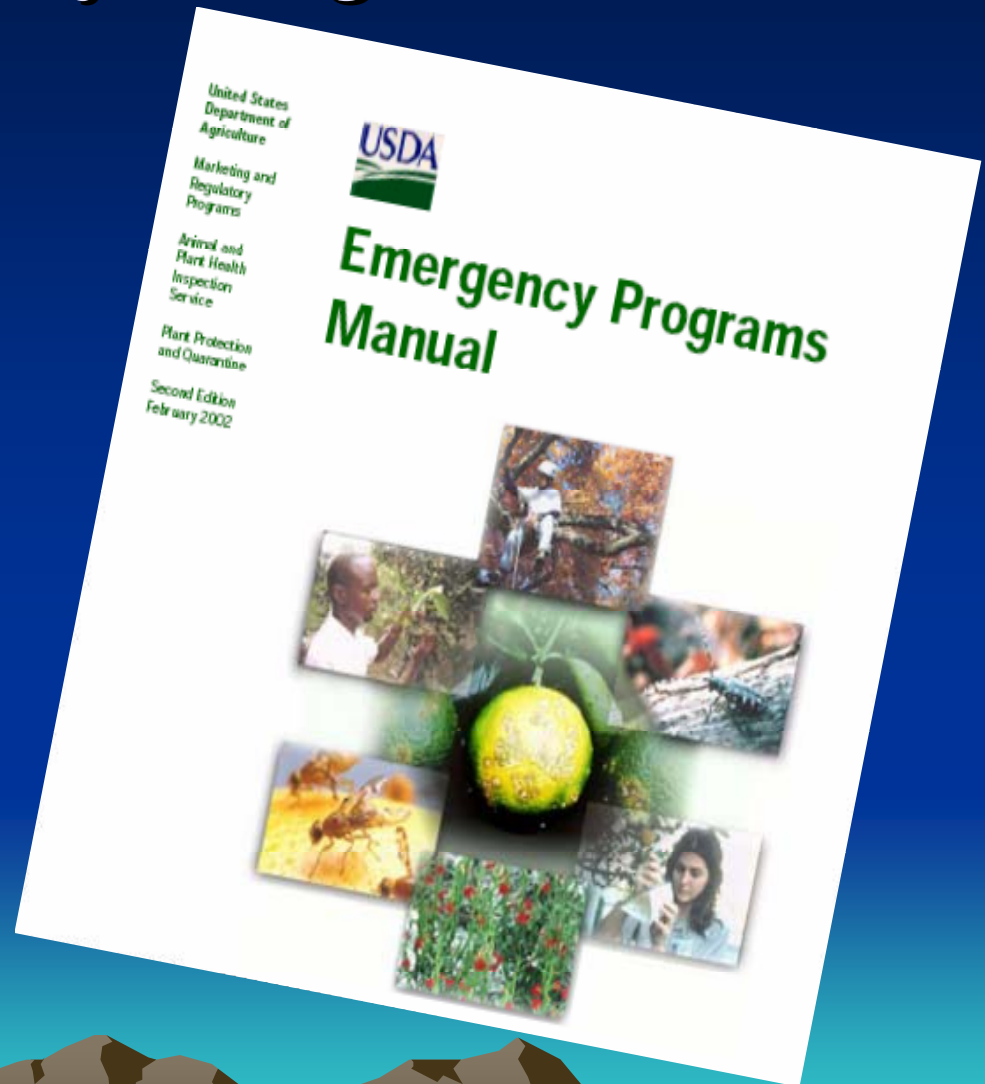
Planning Functions: “Other”

- Updating General MOU's with States
- PPQ Authorities Document for Domestic and Emergency Programs
- Sample tracking for domestic programs
- Emergency Programs Manual



PPQ Emergency Programs Manual

- Updated in 2002
- Needs Revision to Include Incident Command System
- Available on PPQ Web under “Manuals”



Pest Detection Initiative



What are we gonna do when we find it?

Elements of New Pest Response Guidelines (Action Plans)

- Background Information-Life histories
- Identification/Diagnostics
- Survey
- Regulatory
- Control
- Pathways Information
- Bibliography
- List of Expert Consultants



Planning for Exotic Pest Introductions

- “*Action Plans*” became supplements to the *PPQ Emergency Programs Manual*
- **History:**
 - 1982 First Action Plans Written
 - Mediterranean Fruit Fly (*Ceratitis capitata*)
 - Citrus Canker (*Xanthomonas axonopodis* pv *citri*)
 - Chrysanthemum White Rust (*Puccinia horiana*)
 - Potato Wart Fungus (*Synchytrium endobioticum*)
 - Karnal Bunt (*Tilletia indica*)



History: Action Plans

– 1983-1985

- Arrowhead Scale (*Unaspis yanoensis*)
- False Codling Moth (*Cryptophlebia leucotreta*)
- Eggplant Fruit Borer (*Leucinodes orbonalis*)
- Cabbage Moth (*Mamestra brassicae*)
- European Cherry Fruit Fly (*Rhagoletis cerasi*)
- Khapra Beetle (*Trogoderma granarium*)
- Maize Borer (*Chilo partellus*)
- Seen Pest (*Eurygaster integriceps*)
- Sugarcane Downey Mildew (*Peronosclerospora
sacchari*)



History: Action Plans

- 1986-1990
 - Peach Fruit Fly (*Bactocera zonatus*)
 - Oriental Fruit Fly (*Bactocera dorsalis*)
- 1991-1995
 - Asian Gypsy Moth (*Lymantria dispar*)
 - Malaysian Fruit Fly (*Bactocera latifrons*)
 - Generic Spodoptera (*Spodoptera spp.*)
 - Brown Citrus Aphid (*Toxoptera citricida*)
 - Potyviridae “New Pest Response Guidelines”
- 1995-2000
 - Geminiviridae
 - Pink Hibiscus Mealybug (*Maconellicoccus hirsuitus*)
 - Queensland Fruit Fly (*Bactocera dorsalis*)
 - Lymantriidae
 - Asian Longhorned Beetle (*Anoplophora glabripennis*)



Other Existing Action Plans

- Unfinished Drafts
 - Mollusks (Gastropoda)
 - Avocado Weevils (Cucurlionidae)
 - Brown Spruce Longhorned Beetle (*Tetropium fuscum*)
- Obsolete
 - Africanized Bee (*Apis mellifera scutella*)
 - Acarine Mite (*Acarapis woodi*)
 - Varroa mite (*Varroa jacobsoni*)
 - Sorghum ergot (*Claviceps africana*)




Planning Priorities

- Criteria for determining planning priorities:
 - Political
 - Closeness of Threat
 - Economic Importance of Crop or Natural Resource
 - Potential to Cause Damage
 - Pathway Identified
 - Appearance on More than One List



Action Planning Priorities

- **Updating Old Action Plans**
 - **Agricultural Bioterrorism Select Agents (plant diseases)**
 - **Imminent Threats List – “on the horizon”**
 - **Cooperative Pest Survey Program targets**
 - **OPIS – Off-Shore Pest Information System Target List**
 - American Phytopathological Society
 - Weed Science Society of America
 - Entomological Society of America
 - Acarological Society of America
 - American Malacological Society
 - Society of Nematologists
 - **Professional Society Lists:**
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Updating Old Plans

- Chrysanthemum White Rust- Anwar Rizvi
- Asian Gypsy Moth- Weyman Fussell
- *Spodoptera* spp.- Susan Ellis
- Fruit Flies- Steve Knight
 - Mediterranean Fruit Fly (*Ceratitis capitata*)
 - Completed and on Manuals Website
 - *Bactrocera* spp.- needs completion
 - *Anastrepha* spp.- needs completion
 - Fruit fly reference – Jeff Stibick



Immediate Priorities

- **Ag Bioterrorist Act Select Agent List – 10 plant diseases**
 - **Brown Rot, Southern Wilt** *Ralstonia solanacearum* race 3 biovar 2
 - **Potato wart** *Synchytrium endobioticum*
 - **Soybean rust** *Phakopsora pachyrhizi*
 - **Citrus Greening Diseases** *Liberobacter africanus, L. asiaticus*
 - **Citrus variegated chlorosis** *Xylella fastidiosa* strain
 - **Philippine downy mildew** *Peronosclerospora philippinensis*
 - **Brown stripe downy mildew** *Sclerophthora rayssiae* var. *zeae*
 - **Plum pox** *Plum pox potyvirus*
 - **Bacterial leaf stripe of rice** *Xanthomonas oryzae* pv. *Oryzicola*



Ag Bioterrorism Select Agents

CPHST Information Gathering

“The Matrix”

- Diagnostic Tools and Validations*
 - Survey Methodologies*
 - Control Methodologies*
 - Literature Reviews*
 - Organism Risk Assessments*
 - Subject Experts*
-
- Expert Consultant Position in PDMP –*
 - Dr. Conrad Krass, retired from CDFA*
 - To help with information synthesis, regulatory aspects, and writing of draft documents*



Imminent Threats

- Canada
 - Brown Spruce Longhorned Beetle, *Tetropium fuscum*
 - Leek Moth, *Acrolepiopsis assectella*
 - Swede Midge, *Contarinia nasturtii*
- South and Central America, Mexico, Caribbean
 - Citrus Leprosis Virus
 - Soybean rust
 - *Scirtothrips dorsalis*
 - Giant African Snail
 - Long list of threats that needs evaluation



CAPS Targets

- Update existing plans

- Khapra Beetle
- Arrowhead Scale

Trogoderma granarium
Unaspis yanonensis

- Develop new plans

- Old World Bollworm
- False Codling Moth
- Lt. Brown Apple Moth
- European Grape Vine Moth
- Plum Fruit Moth
- Black Parlatoria Scale
- Wild Red Rice
- British yellowhead
- Silver Y Moth
- European Chestnut Weevil
- Sweet Orange Scab
- Citrus Black Spot

Helicoverpa armigera
Cryptophlebia leucotreta
Epiphyas postvittana
Lobesia botrana
Cydia funebrana
Parlatoria ziziphi
Oryza sp. Red Rice
Inula brittanica
Autographa gamma
Curculio elephas
Elsinoe australis
Guignardia citricarpa



Plans in Planning Stage

- General Plans
 - Develop Terrestrial and Aquatic Weeds plans
 - First Draft of Terrestrial Completed
 - Update Mollusks Generic Draft Plan
 - Working Group formed
- Strategic Plans
 - Sudden Oak Death, *Phytophthora ramorum*
 - Cactus moth, *Cactoblastis cactorum*



New Pest Planning Process

- New Serious Pest Threat Identified
- Gather Expertise
 - Scientists working on the pest
 - Center for Plant Health Science and Technology
 - Agriculture Research Service
 - State Department of Agriculture
 - Universities
 - Foreign Scientists
 - National Plant Board Representation
 - Industry Representation

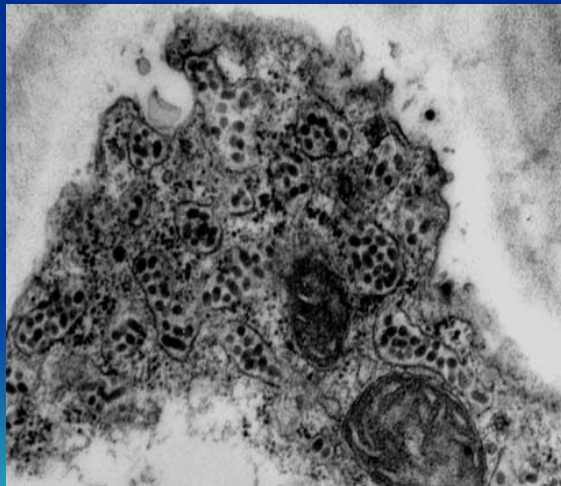


Pest Planning Process (cont'd)

- Identify Research Needs (w/ CPHST)
- Draft Action Plan with Best Known Information
- Reviewed by
 - CPHST, Scientific community
 - Other agencies
 - Cooperators, ie., National Plant Board
 - Industry
- Collaborate with Neighboring Countries
- Find Funding for Research Where Needed



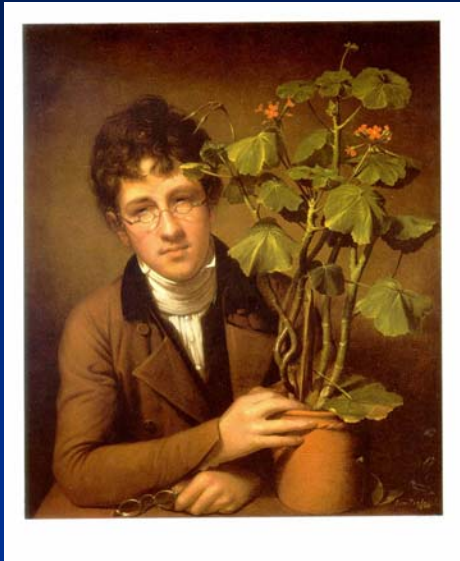
Example: Citrus Leprosis Virus



Citrus Leprosis Virus Meeting
December 4-5, 2002 Lake Alfred, Florida



Ralstonia solanacearum race 3 biovar 2



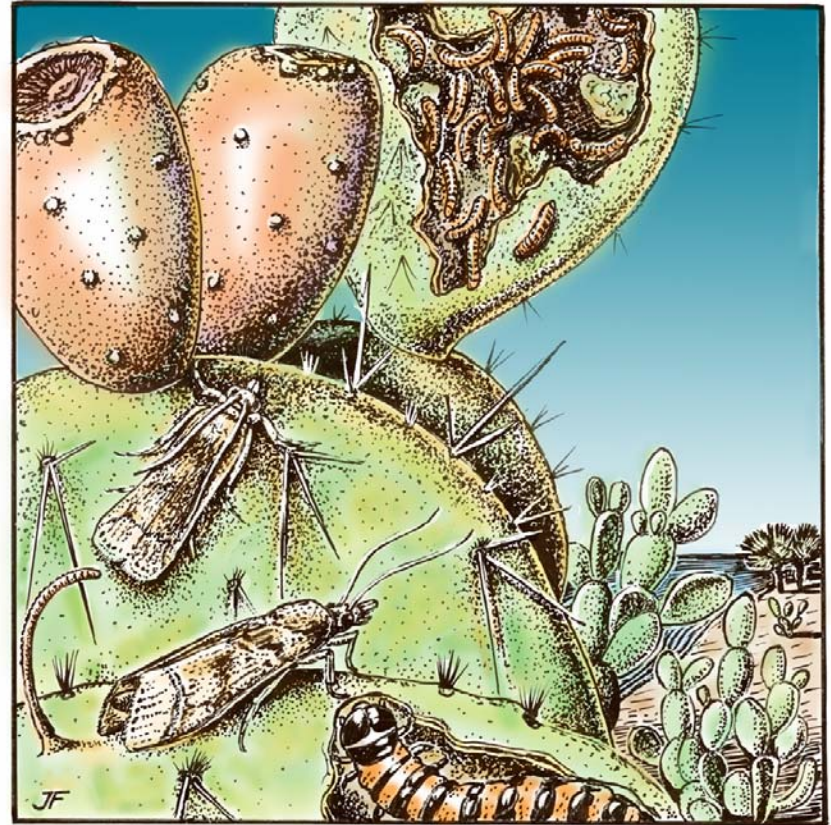
Cactus Moth Meeting

Cactoblastis cactorum

December 9-10th

Miami, Florida

APHIS
National Plant Board
Florida A&M University
Agriculture Research Service
US Geological Survey
US Fish & Wildlife Service
The Nature Conservancy
SAGARPA – Mexico
International Atomic Energy Agency
Nursery Industry



Future Plant Pest Planning

- Get plans posted on website
- Development of templates (insects, diseases)
- Building capacity to complete more plans
- Coordination with Canada, Caribbean and Mexico
- Off-shore pest information and pathway analysis to help determine priorities for completing plans.
- Pest list evaluations for prioritization of work



USDA APHIS

Native American Working Group

Working Together to Protect America's Agriculture



- VS, PPQ, AC, IS, WS
- State Liaisons
- Outreach
- Consultations
- Access to Tribal Lands
- Surveys
- MOUs